

We Are The Explorers!

Abstract

Every year in history classrooms all across the United States, young students are taught about the great westward expansion by the early American pioneers. These visionary pioneers were drawn to the ideas of exploration and adventure along with the promise of a land of opportunity that was open to them. They faced danger and even death in their efforts to conquer this new frontier. These pioneers and explorers could not pack up their entire household and carry enough food, clothing, and other supplies to last their entire journey. They had to be prepared to live off the land and use the local resources in order to survive and thrive. So too, will future explorers have to live off the land as they venture out into new frontiers of space exploration and colonization. This talk will introduce the audience to several in-situ resource utilization (ISRU) technologies that are being investigated for NASA's Journey to Mars. These technologies are needed for missions where astronauts will live, work, and be productive on another planet. After all, pioneers and explorers are not just people we read about in history class. Because we are the explorers of today!